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RR RUEHDH
DE RUEHJI #0261 1940524
ZNR UUUUU ZZH
R 130524Z JUL 09
FM AMCONSUL JEDDAH
TO RUEHC/SECSTATE WASHDC 1422
INFO RUEHRH/AMEMBASSY RIYADH 8419
RUEHDH/AMCONSUL DHAHRAN 0072
RUEHC/DEPT OF INTERIOR WASHDC

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SIPDIS

DEPT FOR NEA/ARP, DEPT OF THE INTERIOR FOR USGS/VDAP

E.O. 12958: N/A
TAGS: AEMR ASEC CASC PGOV SA
SUBJECT: USGS SCIENTISTS RESPOND TO SAG,S REQUEST FOR ASSISTANCE

REF: JEDDAH 190

¶1. (U) SUMMARY: On June 12 the USGS Volcano Assistance Program responded to the Saudi Geological Survey,s request for assistance (reftel) by deploying two scientists to the Kingdom on June 12. While in country VDAP worked with SGS in the lab and field to assess signals of an impending eruption and to develop a volcano and volcanic earthquake warning system. END SUMMARY

¶2. (U) BACKGROUND: The Harra Lunayyir area known as Harra Shagah locally in north western Saudi Arabia has experienced increased seismic activity and ground deformation during the past two years. This increase in activity began with a swarm of tens of thousands of micro earthquakes in February 2007 and continued with two additional waves with as many as 20,000 additional earthquakes in April and May 2009. On April 17, following an increase in earthquake magnitude to magnitude 4.8 and discovery of ground cracks in the northeastern region of Harra, SGS advised Civil Defense authorities of the possibility of larger damaging earthquakes and/or volcanic eruption. As a result of these SGS warnings, the Saudi Arabian Civil Defense authority evacuated the population within 20 Km of the earthquake epicentral area.

¶3. (U) MAGMATIC INTRUSION MAY HAVE CAUSED QUAKES: John Pallister and Wendy McCausland of the USGS Volcano Assistance Program (VDAP) arrived in the Kingdom on June 12 in order to help SGS scientists assess the volcanic risk and provide advanced techniques for volcanic monitoring, eruption forecasting as well as volcano and seismic hazard assessment.
  After running several tests and collecting data, the two scientists report that they are convinced that magmatic intrusion is the source of the earthquakes due to several evident hallmarks of volcanic activity, including distinctive volcanic types of earthquakes and signs of uplift on remotely sensed data. The two also noted that gas emissions would also be expected with this type of intrusive magmatic activity, although none has been detected thus far. They believe this may be because the gas has diffused and is therefore difficult to detect. SAG,s principle concern remains that of additional earthquakes. Based on existing evidence, VDAP has reassured SGS that large earthquakes (greater than M5.5 or M6) are unlikely in this situation.

¶4. (U) NEXT STEPS: USGS assisted SGS in writing a 60 page scientific and hazard report that will be published in the near future. USGS scientists also report that SGS has shown a strong interest in pursuing a long-term relationship with the organization, something that USGS is considering internally.

¶5. (U) COMMENT: Post will continue to monitor the earthquake situation in the northwest part of the country and report on any substantive updates.

TONEY